

Title (en)

VARIABLE REFLEX FOOTWEAR TECHNOLOGY

Title (de)

SCHUHTECHNIK MIT VARIABLEN REFLEXEN

Title (fr)

TECHNOLOGIE D'ARTICLE CHAUSSANT À RÉFLEXE VARIABLE

Publication

**EP 3890545 A4 20221207 (EN)**

Application

**EP 19892540 A 20191202**

Priority

- US 201862774469 P 20181203
- CA 2019051723 W 20191202

Abstract (en)

[origin: US2020170335A1] The present disclosure provides a footwear technology system including a multilayer shoe sole system. The multilayer shoe sole insert can include a lower outsole layer, a midsole layer, and an upper insole layer, wherein the midsole layer includes a plurality of pins extending from the bottom surface of the midsole layer, wherein the pins engage with the pin holes in the outsole layer. The system can include a dynamic upper foot retention system that moves in harmony with the foot's optimal natural movement. The dynamic upper foot retention system can include a top component connecting the lace area to the sole system, and back component that connects the upper heel area to the sole system, wherein when the laces are tightened, the force is directed towards the heel securing the foot to the shoe without forcing the arch down or constricting the raising of the foot arch.

IPC 8 full level

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CPC (source: EP KR US)

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**A43B 13/4** (2013.01 - US)

Citation (search report)

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- [X] DE 202017101310 U1 20170519 - DEE LUXE SPORTARTIKEL HANDELS GMBH [AT]
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- [Y] US 5561919 A 19961008 - GILL YORAM [IL]
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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**US 11589645 B2 20230228; US 2020170335 A1 20200604;** AU 2019391647 A1 20210722; CA 3121925 A1 20200611;  
CN 113710119 A 20211126; CN 113710119 B 20231027; EP 3890545 A1 20211013; EP 3890545 A4 20221207; KR 20230014609 A 20230130;  
WO 2020113316 A1 20200611

DOCDB simple family (application)

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